Claims 1-40 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-2, 6-22, and 26-40 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Suhm et al. (U.S. Pat. No. 6,823,054). This rejection is respectfully traversed.

The Examiner relies on Suhm et al. to teach an automated response analysis in which a caller interacts with an automated dialogue manager by DTMF or spoken responses, and/or with an agent. The Examiner relies on Suhm et al. to teach automatically annotating a transcript of the call with caller/agent turns, recognized text, and topics.

Claims 1, 6, 11-15, 21, 26, and 31-35

The Examiner erroneously remarks that Suhm et al. improve automatic recognition of speech of a second speaker based on interaction of the second speaker with a first speaker employed as a reference speaker at col. 14, lines 42-65, col. 19, lines 32-61, col. 20, lines 15-59, col. 39, lines 32-61. For example, the Examiner erroneously identifies the "speaker models" at col. 20, line 20 as "language models." In particular, the "speaker models" are employed to tell when the agent is speaking, so they are used for speaker identification instead of speech recognition. Therefore, they cannot be "language models." Thus, Suhm et al. cannot be viewed as teaching topically focused language models selected by agent speech to recognize caller speech. Nor do

Suhm et al. teach any agent speech recognition derived input to language models employed to recognize caller speech. Also, the Examiner mischaracterizes the teaching of Suhm et al. at col. 39 as teaching use of agent speech recognition results to contstrain or rescore recognition of caller speech. Thus, at no point do Suhm et al. contemplate using any information obtained from interaction of the caller and agent in order to improve recognition of the caller's speech.

Applicants' claimed invention is directed toward using interaction between a caller and agent employed as a reference speaker to improve recognition of speech of the caller. For example, independent claims 1 and 21 recite, "improving automatic recognition of speech of a second speaker based on interaction of the second speaker with a first speaker employed as a reference speaker." Thus, Suhm et al. do not teach, all of the limitations of the independent claims.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 1, 6, 11-15, 21, 26, and 31-35 under 35 U.S.C. § 102(b), along with rejection on these grounds of all claims dependent therefrom.

Claims 2 and 22

The Examiner erroneously remarks that Suhm et al. teach employing a priori knowledge regarding which speech was received on which channel to identify speech of the first speaker with speech received on the first channel, and to identify speech of the second speaker with speech received on the second channel at col. 16 and col. 20. But the techniques employed to designate agent/caller turns, such as speaker models to identify when the agent speaks, or assuming the agent speaks first after a hold, indicate that the system has no knowledge regarding which speech in the recording arrived over

which channel. Thus, Suhm et al. do not contemplate differentiating between speech of the first speaker and speech of the second speaker by identifying speech of the first speaker with speech received on the first channel, and identifying speech of the second speaker with speech received on the second channel.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 2 and 22 under 35 U.S.C. § 102(b).

Claims 9 and 29

The Examiner erroneously remarks that Suhm et al. teach identifying a predetermined topic associated with an electronic form selected by call center personnel at col. 20, lines 15-59. However, selection of a form by an agent is not one of the events listed at col. 10, lines 12-17, and it is not explicitly disclosed at col. 20, lines 15-59. Therefore, Suhm et al. do not contemplate identifying a predetermined topic associated with an electronic form selected by call center personnel.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 2 and 22 under 35 U.S.C. § 102(b).

Claims 15 and 35

The Examiner erroneously remarks that detecting interruptions is inherent to end-to-end recordings, and that the interruption detection and annotation is taught at col. 6, lines 21-34, and col. 20, lines 15-59. However, the methods taught for annotations of caller/agent turns are likely to result in demarcations that identify when the agent is speaking, with assumptions that the other portions of the call are when the caller is speaking. Therefore, without the use of a priori knowledge regarding which speech arrived on which channel, and without an explicit teaching of interruption detection,

Suhm et al. cannot be viewed as having contemplated or as having enabled interruption detection.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 15 and 35 under 35 U.S.C. § 102(b).

REJECTION UNDER 35 U.S.C. § 103

Claims 3-5 and 23-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Suhm et al. (U.S. Pat. No. 6,823,054) in view of Skerpac (U.S. Pat. App. Pub. No. 2002/0104027). This rejection is respectfully traversed.

The Examiner relies on Suhm et al. to teach an automated response analysis in which a caller interacts with an automated dialogue manager by DTMF or spoken responses, and/or with an agent. The Examiner relies on Suhm et al. to teach automatically annotating a transcript of the call with caller/agent turns, recognized text, and topics. The Examiner admits that Suhm et al. do not teach employing the first speaker as a reference speaker.

The Examiner relies on Skerpac to teach a biometric security system in which training speech is obtained with a high quality microphone so that this "reference speech" can later be used to verify identity of the same speaker supplying speech by a lower quality microphone. However, speaker verification is a wholly different operation than speech recognition, and the use of the reference is respectfully challenged as not being directed toward the art of speech recognition; the speaker model developed by Skerpac is not used to recognize speech of the speaker at a later time. Also, the speaker according to the teachings of Skerpac is the same person, so Skerpac cannot

fairly be viewed as contemplating using speech recognition results of a first speaker to improve recognition of speech of a second speaker *interacting with* the first speaker.

Applicants' claimed invention is directed toward using interaction between a caller and agent employed as a reference speaker to improve recognition of speech of the caller. For example, independent claims 1 and 21 recite, "improving automatic recognition of speech of a second speaker based on interaction of the second speaker with a first speaker employed as a reference speaker." Thus, Suhm et al. and Skerpac do not teach, suggest, or motivate all of the limitations of the independent claims. These differences are significant.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 3-5 and 23-25 under 35 U.S.C. § 103(a).

<u>CONCLUSION</u>

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: _May 23, 2007_

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